

CLAIMS

1. A method of storing a digital asset in a data repository for the purpose of providing efficient access to the data over a network, said method comprising:

receiving a broadcast cryptographic hash descriptor file identifier;

5 determining whether the broadcast cryptographic hash descriptor file identifier is a known cryptographic hash descriptor file identifier;

adding the broadcast cryptographic hash descriptor file identifier to a list of desired broadcast cryptographic hash descriptor file identifiers;

10 receiving a digital asset identified by the broadcast cryptographic hash descriptor file identifier;

generating a generated cryptographic hash descriptor file identifier from the assembled asset; and

verifying that the generated cryptographic hash descriptor file identifier matches the broadcast cryptographic hash descriptor file identifier.

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2. A method as recited in claim 1 wherein adding the broadcast cryptographic hash descriptor file identifier includes:

determining the number of times the broadcast cryptographic hash descriptor file identifier has been received; and

20 determining whether to add the cryptographic hash descriptor file identifier to said list based upon said number of times.

3. A method as recited in claim 1 wherein receiving a digital asset identified by the transmitted cryptographic hash descriptor file identifier includes:

receiving portions of said asset identified by the transmitted cryptographic hash descriptor file identifier at different times; and

assembling the portions of the asset into the complete asset.

5 4. A method as recited in claim 3 further comprising:

sending a broadcast request for portions of assets that have not been obtained.

5. A method as recited in claim 4 further comprising:

determining an amount of broadcast traffic on a local network; and

10 determining whether to send the broadcast request based on the amount of broadcast traffic on the local network.

6. A method as recited in claim 1 further comprising:

15 quarantining the asset while verifying that the generated cryptographic hash descriptor file identifier matches the broadcast cryptographic hash descriptor file identifier.

7. A method as recited in claim 1 wherein a plurality of data repositories configured serially are present on said network, said method further comprising:

20 comparing the cryptographic hash descriptor file identifier to a selection rule; and

determining whether to add the broadcast cryptographic hash descriptor file identifier to a list of desired broadcast cryptographic hash descriptor file identifiers based on said selection rule.

8. A method as recited in claim 1 wherein said received asset is a descriptor file, said method further comprising:

opening the descriptor file to obtain a list of asset identifiers; and

5 adding the list of asset identifiers to the list of desired broadcast cryptographic hash descriptor file identifiers.

9. A method as recited in claim 1 further comprising:

storing said received asset in said data repository; and

10 responding to a network request from a network device for said stored asset by broadcasting the stored asset.

10. A method as recited in claim 1 further comprising:

15 responding to a network request from a network device for a stored digital asset by broadcasting portions of the stored asset; and

broadcasting portions of the stored file before the entire asset is received at the data repository.

20 11. A data repository on a network comprising:

an asset collector operative to

receive a broadcast cryptographic hash asset identifier,

add the broadcast cryptographic hash asset identifier to a list of desired broadcast cryptographic hash asset identifiers,

receive an asset identified by the broadcast cryptographic hash asset identifier,

verify the identity of the asset by generating a generated cryptographic hash asset identifier from the assembled asset, and

5 compare the generated cryptographic hash asset identifier to the broadcast cryptographic hash asset identifier;

an asset storage memory for storing the received asset; and

an asset supplier for supplying the file to a network device that requests the asset.

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12. A method of selectively storing data in a data repository and providing stored data from a data repository over a network, said method comprising:

receiving a broadcast cryptographic hash digital asset identifier;

15 determining whether the broadcast cryptographic hash asset identifier corresponds to a received asset that is stored in the data repository;

adding the broadcast cryptographic hash descriptor file identifier to a list of desired broadcast cryptographic hash descriptor file identifiers if the broadcast cryptographic hash asset identifier does not correspond to a received asset that is stored in the data repository; and

20 broadcasting the received asset that is stored in the data repository if the broadcast cryptographic hash asset identifier corresponds to a received asset that is stored in the data repository.

13. A method of deleting a digital asset in a data repository comprising:

25 receiving a broadcast cryptographic hash descriptor file identifier;

adding the broadcast cryptographic hash descriptor file identifier to a list of file to be deleted;

comparing the cryptographic hash asset identifier to a generated cryptographic hash asset identifier that represents a known asset in an asset list; and

- 5 deleting the known asset from the asset.